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7, 10, 11, 16 and 17 are amended and claims 2-5, 8-9 and 12-15 continue unamended.

In view of both the amendments presented above and the following discussion, the applicants submit that none of the claims now pending in the application are indefinite, anticipated or obvious under the respective provisions of 35 U.S.C. §112, §102 and §103. Thus, the applicants believe that all of these claims are now in allowable form.

It is to be understood that the applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to applicants' subject matter recited in the pending claims. Further, applicants are not acquiescing to the Examiner's statements as to the applicability of the prior art of record to the pending claims by filing the instant responsive amendments.

A. IN THE DRAWINGS

The Examiner has objected to the drawings for failing to include reference designations mentioned in the description of the application. Specifically, the applicants have amended FIG. 1 to conform the drawing to the specification. IN particular, the applicants have amended FIG. 1 to include the reference designation 100, which is fully disclosed in the specification (page 3, line 34) but missing from the drawing.

Applicants have enclosed a proposed drawing correction (shown in red ink) in response to this Office Action, and applicants submit that such added reference designation to FIG. 1 does not add any new subject matter. Therefore, the applicants respectfully request that the objection be withdrawn. On acceptance of these changes, the applicants will submit the formal drawings.

B. IN THE SPECIFICATION

The applicants have amended the specification to provide minor grammatical corrections. Such grammatical corrections do not add any new subject matter to the application.

C. REJECTION OF CLAIMS

1. 35 U.S.C. §112
 - a. Claim 7

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The Examiner has rejected claim 7 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. In particular, the Examiner contends that there is no antecedent basis for "said second transport packetizer."

The applicants have amended claim 7 to properly depend from claim 2. As such, the applicants submit that claim 7 is not indefinite and fully satisfies the requirements under 35 U.S.C. §112 and is patentable thereunder. Therefore, the applicants respectfully request that the rejection be withdrawn.

b. Claim 6

The Examiner has rejected claim 6 under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. In particular, the Examiner contends that the limitation "to adapt a member of NULL packets" is unclear.

The applicants have amended claim 6 to particularly point out and distinctly claim the subject matter that the applicants regard as the invention. In particular, the applicants have amended claim 6 to include the limitation "to provide a number of NULL packets." As such, the applicants submit that claim 6 is not indefinite and fully satisfies the requirements under 35 U.S.C. §112 and is patentable thereunder. Therefore, the applicants respectfully request that the objection be withdrawn.

c. Claim 11

The Examiner has rejected claim 11 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. In particular, the Examiner states that the limitation "wherein said asset packets have been processed" is unclear.

The applicants have amended claim 11 to particularly point out and distinctly claim the subject matter that the applicants regard as the invention. In particular, the applicants have amended claim 11 to include the limitation "wherein said asset packets are processed according to the steps of." As such, the applicants submit that claim 11 is not indefinite and fully satisfies the requirements under 35 U.S.C. §112

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and is patentable thereunder. Therefore, the applicants respectfully request that the objection be withdrawn.

d. Claim 17

The Examiner has rejected claim 17 as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicants regard as the invention. In particular, the Examiner contends that claim 17 repeats information from claim 10 upon which it is dependent. Specifically "replacing at least some of the NULL packets with said asset packets" has already been provided in claim 10.

Applicants have amended claim 17 to particularly point out and distinctly claim the subject matter that applicants regard as the invention. In particular, the applicants have deleted the limitation "replacing at least some of said NULL packets with said asset packets." As such, the applicants submit that claim 17 is not indefinite and fully satisfies the requirements under 35 U.S.C. §112 and is patentable thereunder. Therefore, the applicants respectfully request that the objection be withdrawn.

2. 35 U.S.C. §102

The Examiner has rejected claims 1-4, 6-8 and 10-16 under 35 U.S.C. §102 as being anticipated by Omoto et al. (Japanese Publication No. 11-163817, published June 18, 1999, hereinafter "Omoto"). The applicants respectfully traverse the rejection.

The applicants have amended claims 1 and 10 to include additional features the applicants consider inventive. In particular, claim 1 (and similarly claim 10) recites:

"In an information distribution system providing content data and asset data to at least one subscriber, apparatus comprising:
a NULL packet inserter, for inserting NULL transport packets within a transport stream including content packets; and
a transport processor, for replacing at least some of said NULL packets with asset packets associated with said content packets to

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produce a transport stream including content packets and asset packets." (emphasis added)

Anticipation requires the presence of a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. (*Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1983)) (emphasis added). The Omoto reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

The Omoto reference discloses a multiplexer and a NULL packet generator for multiplexing two or more transport streams, where the NULL packet generator inserts NULL packets to provide an output transport stream having a transmission rate that is the same as the time of the input transport streams. (see Omoto, FIG. 5). However, the input transport streams to the multiplexer are transport streams destined for different equipment. In particular, "when the transport stream TS (B) which is another equipment stream is programmed data by which compression coding was carried out like the transport stream TS (A), the null packet (Null) generated by the null packet generator 12 will be outputted to the transport stream TS (A) and the term (blank term when a significant packet does not exist) non-inputted from the multiplexing machine (MUX) 23." (See Omoto, paragraph 0051)

By contrast, the applicants' invention includes the limitation of "a transport processor, for replacing at least some of the NULL packets with asset packets associated with the content packets to produce a transport stream including content packets and asset packets." Nowhere in the Omoto reference is there any teaching that the asset packets are associated with the content packets. Rather, the second transport stream of Omoto is a packetized information stream containing information for a different destination. This is completely different from the applicants' invention, since the asset packets are associated with the content packets and are transported to the same subscriber. That is, session the controller utilizes mapping data to determine which asset data stream or file is associated with the requested content stream or file. (See specification, page 7, lines 9-11). Therefore, the Omoto reference

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fails to disclose each and every element of the claimed invention arranged as in the claim.

As such, the applicants submit that claim 1 is not anticipated and fully satisfies the requirements under 35 U.S.C. §102 and is patentable thereunder. Likewise, independent claim 10 recites similar limitations as recited in Independent claim 1. As such, the applicants submit that claim 10 is not anticipated and fully satisfies the requirements under 35 U.S.C. §102 and is patentable thereunder.

Furthermore, claims 2-4, 6-9 and 11-16 respectively depend from independent claims 1 and 10 and recite additional limitations thereof. As such, and for at least the same reasons discussed above, the applicants submit that these dependent claims also fully satisfy the requirements under 35 U.S.C. §102 and are patentable thereunder. Therefore, the applicants respectfully request that the rejection be withdrawn.

3. 35 U.S.C. §103

a. Claims 5 and 17

The Examiner has rejected claims 5 and 17 under 35 U.S.C. §103 as being obvious and unpatentable over Omoto in view of LaJoie et al. (U.S. Patent No. 5,850,218, issued December 15, 1998, hereinafter "LaJoie"). The applicants respectfully traverse the rejection.

Claim 5 depends from independent claim 1 and recites additional limitations thereof. In particular, claim 5 recites in part:

"In an information distribution system providing content data and asset data to at least one subscriber, apparatus comprising:
a NULL packet inserter, for inserting NULL transport packets within a transport stream including content packets; and
a transport processor, for replacing at least some of said NULL packets with asset packets associated with said content packets to produce a transport stream including content packets and asset packets." (emphasis added)

The combination of Omoto and LaJoie fails to teach or suggest the applicants' invention as a whole. As discussed above, the Omoto reference fails to teach or

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suggest a transport processor for replacing at least some of the NULL packets with asset packets associated with the content packets to produce a transport stream including content packets and asset packets. Rather, the Omoto reference merely discloses a multiplexer and a NULL packet generator for multiplexing two or more transport streams, where the NULL packet generator inserts NULL packets to provide an output transport stream having a transmission rate that is the same as the time of the input transport streams. (see Omoto, FIG. ??). However, the input transport streams to the multiplexer are transport streams destined for different equipment. In particular, "when the transport stream TS (B) which is another equipment stream is programmed data by which compression coding was carried out like the transport stream TS (A), the null packet (Null) generated by the null packet generator 12 will be outputted to the transport stream TS (A) and the term (blank term when a significant packet does not exist) non-inputted from the multiplexing machine (MUX) 23." (See Omoto, paragraph 0051)

The LaJoie reference fails to bridge the substantial gap as between the Omoto reference and the applicants' invention. Specifically, the LaJoie reference discloses an Interactive Cable Gateway which processes the servers' signals so that they may be transmitted over the cable system's communication network (see LaJoie, column 12, lines 11-13). Even if the two references could somehow be properly combined (and the applicants submit that the references cannot be properly combined), the resulting combination of Omoto and LaJoie would merely provide an Interactive Cable Gateway for processing multiplexed signals so that they may be transmitted over a cable system's communication network to multiple set top terminals. However, nowhere in the combined references is there any teaching or suggestion of a transport processor for replacing at least some of the NULL packets with asset packets associated with the content packets to produce a transport stream including content packets and asset packets. Therefore, the combination of Omoto and LaJoie fail to teach the applicants' invention as a whole.

As such, the applicants submit that claim 5 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Likewise, claim 5

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Respectfully submitted,

8/22/02

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recites similar limitations as recited in dependent claim 5. As such, the applicants submit that claim 17 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the applicants respectfully request that the rejection be withdrawn.

b. Claim 9

The Examiner has rejected claim 9 under 35 U.S.C. §103 as being unpatentable over Omoto. The applicants respectfully traverse the rejection.

Claim 9 depends from independent claim 1 and recites additional limitations thereof. The Omoto reference fails to teach or suggest the applicants' invention as a whole. The Omoto reference fails to teach or suggest a transport processor for replacing some of the NULL packets with asset packets associated with the content packets to produce a transport stream including content packets and asset packets. That is, the Omoto reference is completely silent regarding producing a transport stream that includes content packets and asset packets associated with such content packets. Therefore, the Omoto reference fails to teach or suggest the limitations of claim 9 as a whole.

As such, the applicants submit that claim 9 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the applicants respectfully request that the rejection be withdrawn.

Conclusion

Thus, the applicants submit that claims 1-17 are in condition for allowance. Furthermore, the drawings, specification and Abstract have been amended as requested by the Examiner. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. at (732) 530-9404 so appropriate arrangements can be made for resolving such issues as expeditiously as possible.

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APPENDIX I
Marked-up Version of Amended Specification

On page 13, please replace the paragraph beginning on line 4 with the following amended paragraph:

At step 340 mapping data linking the content and asset data (e.g., navigation screens, MPEG content and navigation assets) is generated. That is, mapping data, which is used to link the multiplexed content/null packet stream [of] stored in the content storage module 140 to the packetized asset stream stored in the asset storage module 125, is generated such that subsequent processing of the streams by the transport processor 150 may be used to combine video, associated audio, and assets, such as navigation assets. The method 300 then proceeds to step 345.

On page 19, replace the ABSTRACT with the following amended ABSTRACT:

ABSTRACT

A method and apparatus for transport [encoding] encoded asset data and content data, multiplexing the transport encoded content data with a plurality of NULL transport packets to provide "place holder" for the asset data transport packets, and replacing the NULL transport packets with asset data transport packets prior to transmitting the multiplexed transport stream to a set top box.

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APPENDIX I
Marked-up Version of Amended Claims

Replace claims 1, 6, 7, 10, 11, 16 and 17 with the following claims 1
(amended), 6 (amended), 7 (amended), 16 (amended) and 17 (amended) as follows:

1. (amended) In an information distribution system providing content data and asset data to at least one subscriber, apparatus comprising:
 - a NULL packet inserter, for inserting NULL transport packets within a transport stream including content packets; and
 - a transport processor, for replacing at least some of said NULL packets with asset packets associated with said content packets to produce a transport stream including content packets and asset packets.
6. (amended) The apparatus of claim 1, wherein said NULL packet inserter is responsive to a bandwidth reservation signal to [adapt] provide a number of NULL packets inserted into said transport stream including content packets.
7. (amended) The apparatus of claim [1] 2, wherein said second transport packetizer provides mapping data indicative of the location of NULL packets within said transport stream including content packets and NULL packets.
10. (amended) In an information distribution system providing content data and asset data to at least one subscriber, a method for processing content and asset information comprising the steps of:
 - inserting, within a transport stream including content packets, a plurality of NULL packets; and
 - replacing at least some of said NULL packets with asset packets associated with said content packets to produce a transport stream including content packets and asset packets.

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11. (amended) The method of claim 10, wherein said asset packets [have been] are processed according to the steps of:

packetizing, using a transport packetizer, at least one information stream comprising an asset information stream, said asset information stream being associated with a content stream.

16. (amended) The method of claim 10, wherein said step of inserting said asset packets is repeated according to an asset injection count.

17. (amended) The method of claim 11, further comprising the steps of:

interacting with a subscriber to receive a content request;

retrieving a transport stream including said requested content packets and any inserted NULL packets; and

[replacing at least some of said NULL packets with said asset packets; and]

transporting, to said requesting subscriber, a transport stream including said transport stream including said requested content and said inserted asset packets.

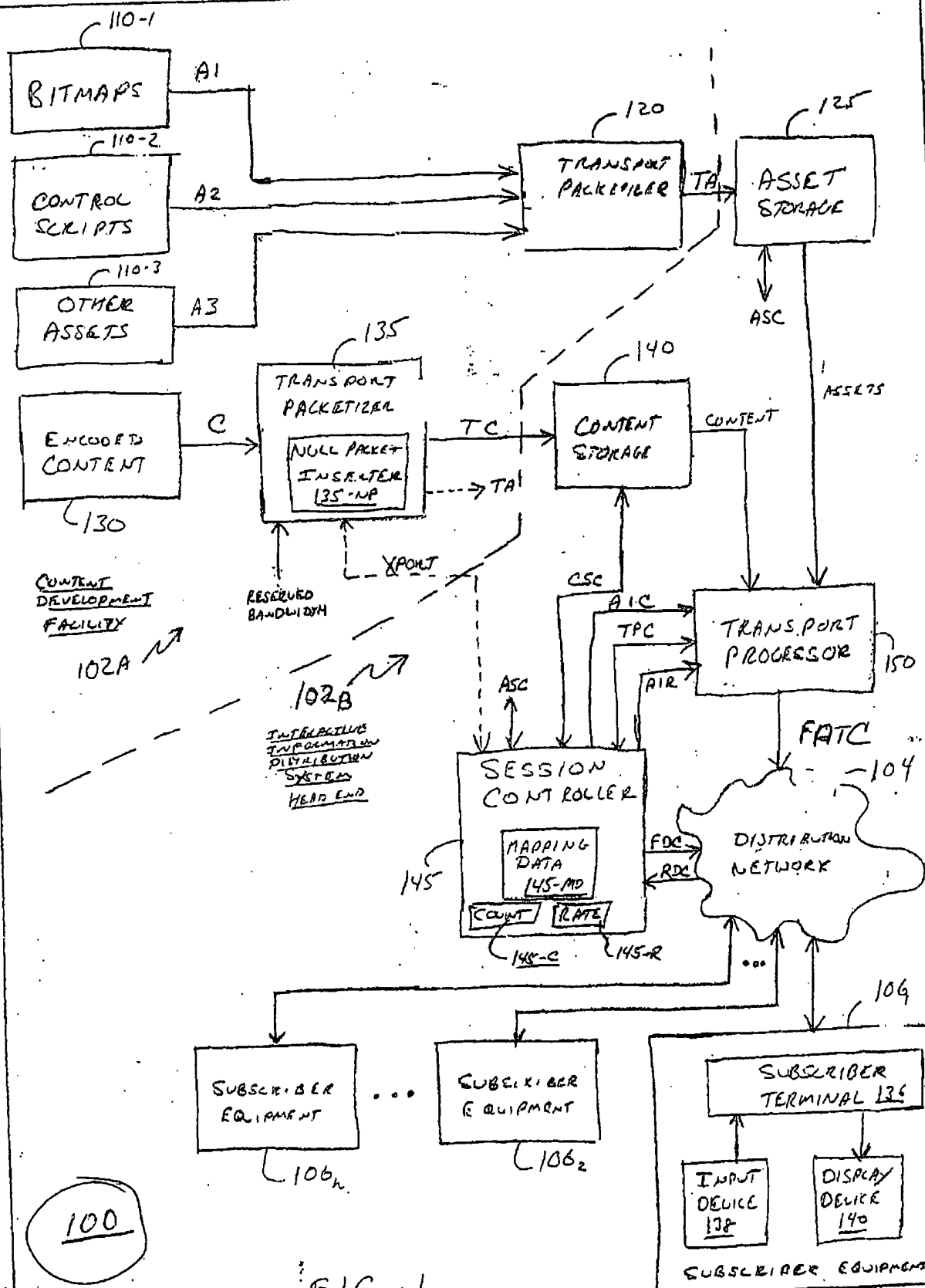
22-141 50 SHEETS
22-142 100 SHEETS
22-143 200 SHEETS

FIG. 1